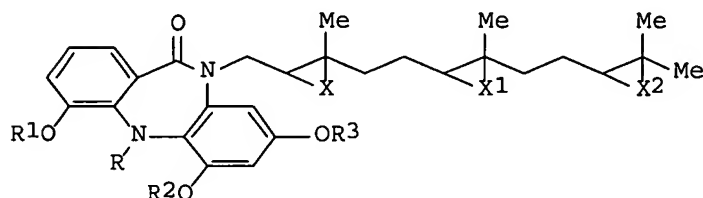


L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2005:431399 CAPLUS Full-text
 DN 142:482166
 TI Preparation of farnesyl dibenzodiazepinones, their production with microorganisms, and their use as antitumor, antibacterial, and antiinflammatory agents
 IN Farnet, Chris M.; Dimitriadou, Violetta; Bachmann, Brian O.
 PA Ecopia Biosciences, Inc., USA
 SO U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Ser. No. 762,107.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|----------|
| PI | US 2005107363 | A1 | 20050519 | US 2004-951436 | 20040927 |
| | US 2005043297 | A1 | 20050224 | US 2004-762107 | 20040121 |
| PRAI | US 2003-441126P | P | 20030121 | | |
| | US 2003-492997P | P | 20030807 | | |
| | US 2003-518286P | P | 20031110 | | |
| | US 2004-762107 | A2 | 20040121 | | |
| OS | MARPAT 142:482166 | | | | |
| GI | | | | | |



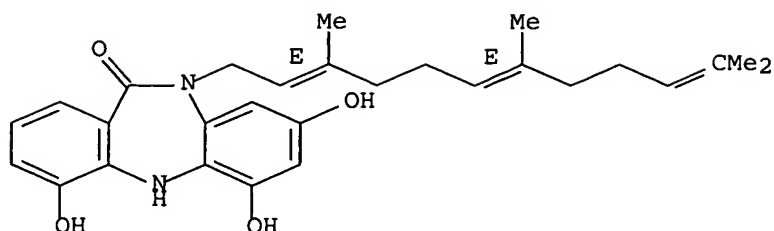
I

AB This invention relates to the prepn of farnesyl dibenzodiazepinone derivs., such as I [R = H, alkyl, alkenyl, aryl, heteroaryl; R1, R2, R3 = H, alkyl, alkenyl, aryl, heteroaryl, acyl; X, X1, X2 = H2, (OH)2, -O-, or forms (E)-double bond], to methods of their use inhibiting the growth of cancer cells and to methods of treating cancer using the farnesylated dibenzodiazepinones. Thus, farnesyl dibenzodiazepinone I [R = R1 = R2 = R3 = H, X = X1 = X2 forms (E)-double bond] (ECO 04601) was prepared via a fermentation process using *Micromonospora* spp. and was subsequently epoxidized with m-chloroperbenzoic acid in THF to form corresponding mono-epoxides II [R = R1 = R2 = R3 = H, X = -O-, X1 = X2 forms (E)-double bond; X = X2 forms (E)-double bond, X1 = -O-; X = X1 forms (E)-double bond, X2 = -O-] with yields ranging from 15 to 25%. ECO 04601 was tested for anticancer activity against a variety of cancer cell lines.

IT 733035-26-2P, ECO 04601
 RL: BPN (Biosynthetic preparation); PAC (Pharmacological activity); PKT (Pharmacokinetics); PUR (Purification or recovery); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of farnesyl dibenzodiazepinones, their production with *Micromonospora* microorganisms, and their use as antitumor, antibacterial, and antiinflammatory agents)

RN 733035-26-2 CAPLUS
 CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5,10-dihydro-4,6,8-trihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 733011-10-4P 733011-11-5P 733011-12-6P
 733011-32-0P 733011-33-1P 733011-39-7P
 733011-41-1P

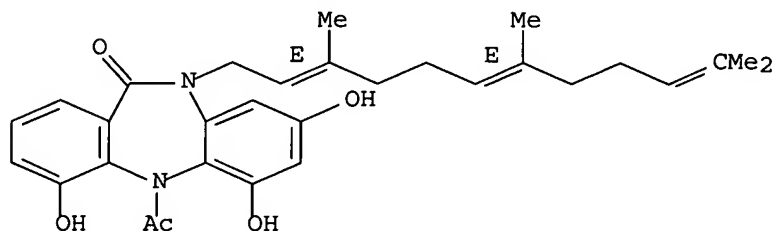
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of farnesyl dibenzodiazepinones, their production with Micromonospora microorganisms, and their use as antitumor, antibacterial, and antiinflammatory agents)

RN 733011-10-4 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-acetyl-5,10-dihydro-4,6,8-trihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

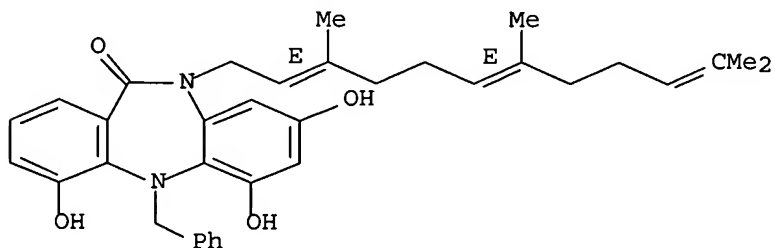
Double bond geometry as shown.



RN 733011-11-5 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-(phenylmethyl)-5,10-dihydro-4,6,8-trihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

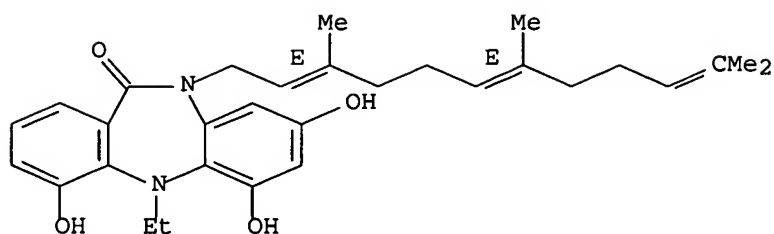
Double bond geometry as shown.



RN 733011-12-6 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-ethyl-5,10-dihydro-4,6,8-trihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

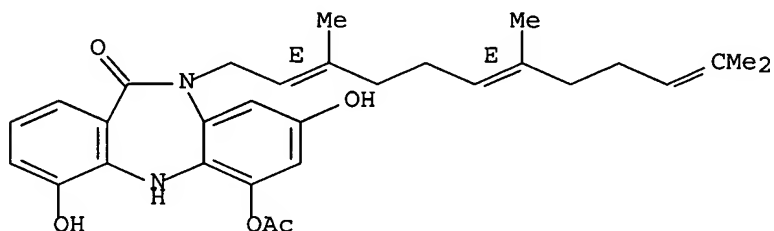
Double bond geometry as shown.



RN 733011-32-0 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 6-(acetyloxy)-5,10-dihydro-4,8-dihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

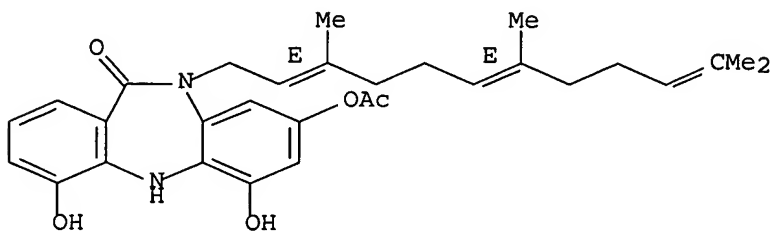
Double bond geometry as shown.



RN 733011-33-1 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 8-(acetyloxy)-5,10-dihydro-4,6-dihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

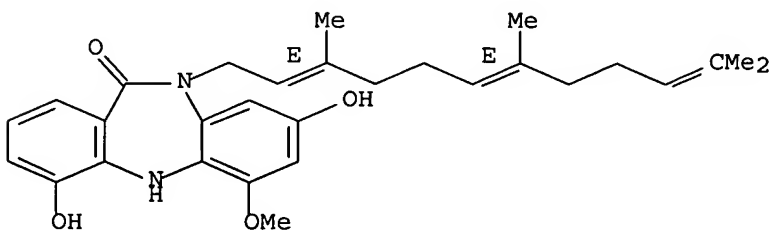
Double bond geometry as shown.



RN 733011-39-7 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5,10-dihydro-4,8-dihydroxy-6-methoxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

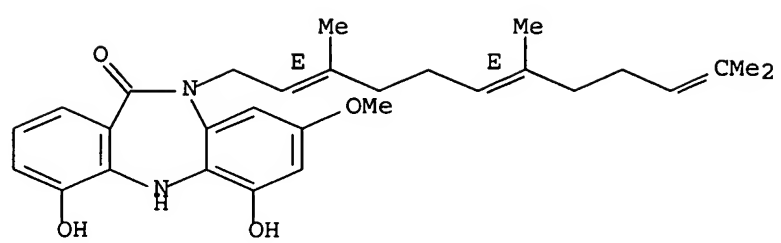
Double bond geometry as shown.



RN 733011-41-1 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5,10-dihydro-4,6-dihydroxy-8-methoxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:634064 CAPLUS Full-text

DN 141:167757

TI Farnesyl dibenzodiazepinones, their production with microorganisms, and their use as antitumor, antibacterial, and antiinflammatory agents

IN Bachmann, Brian O.; Mcalpine, James B.; Zazopoulos, Emmanuel; Farnet, Chris M.; Pirae, Mahmood

PA Ecopia Biosciences Inc., Can.

SO PCT Int. Appl., 269 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| PI | WO 2004065591 | A1 | 20040805 | WO 2004-CA69 | 20040121 |
| | W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GH, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ | | | | |
| | CA 2466340 | AA | 20040809 | CA 2004-2466340 | 20040121 |
| PRAI | US 2003-441126P | P | 20030121 | | |
| | US 2003-492997P | P | 20030807 | | |
| | US 2003-518286P | P | 20031110 | | |
| | WO 2004-CA69 | W | 20040121 | | |

OS MARPAT 141:167757

AB This invention relates to a novel farnesylated dibenzodiazepinone, named ECO-04601, its pharmaceutically acceptable salts and derivs., and to methods for obtaining such compds. One method of obtaining the ECO-04601 compound is by cultivation of a novel strain of Micromonospora sp., 046-ECO11; another method involves expression of biosynthetic pathway genes in transformed host cells. The present invention further relates to Micromonospora sp. strain 046-ECO11, to the use of ECO-04601 and its pharmaceutically acceptable salts and derivs. as pharmaceuticals, in particular to their use as inhibitors of cancer cell growth, bacterial cell growth, mammalian lipoxygenase, and to pharmaceutical compns. comprising ECO-04601 or a pharmaceutically acceptable salt or derivative thereof. Finally, the invention relates to novel polynucleotide sequences and their encoded proteins, which are involved in the biosynthesis of ECO-04601.

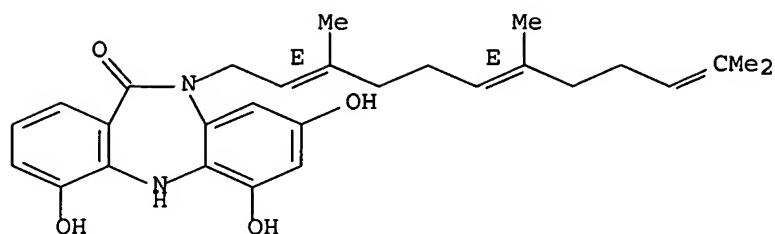
IT 733035-26-2P, ECO 04601

RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (farnesyl dibenzodiazepinones, their production with microorganisms, and their use as antitumor, antibacterial, and antiinflammatory agents)

RN 733035-26-2 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5,10-dihydro-4,6,8-trihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 733011-10-4P 733011-11-5P 733011-12-6P
733011-32-0P 733011-33-1P 733011-39-7P
733011-41-1P

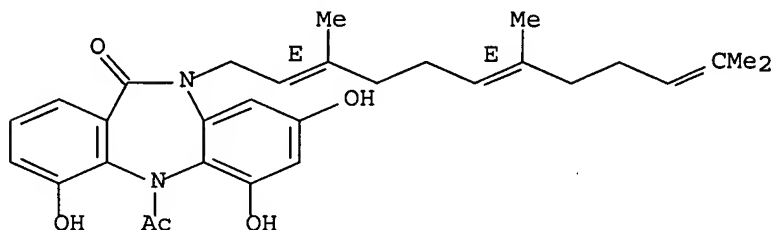
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(farnesyl dibenzodiazepinones, their production with microorganisms, and their use as antitumor, antibacterial, and antiinflammatory agents)

RN 733011-10-4 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-acetyl-5,10-dihydro-4,6,8-trihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

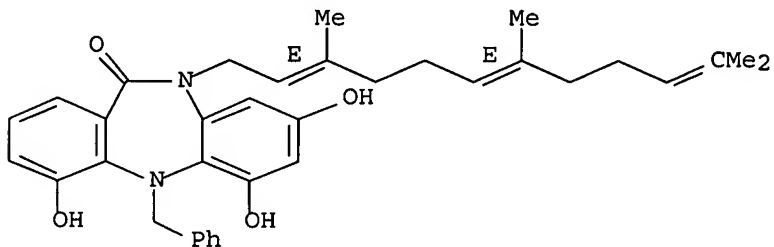
Double bond geometry as shown.



RN 733011-11-5 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5,10-dihydro-4,6,8-trihydroxy-5-(phenylmethyl)-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

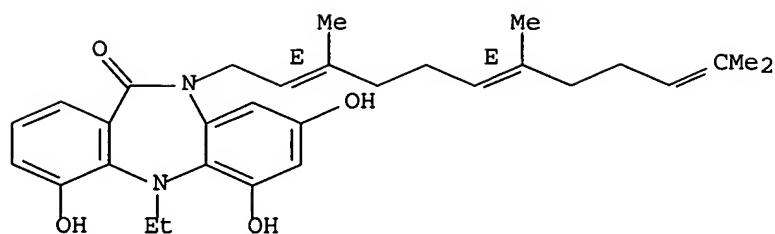
Double bond geometry as shown.



RN 733011-12-6 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-ethyl-5,10-dihydro-4,6,8-trihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

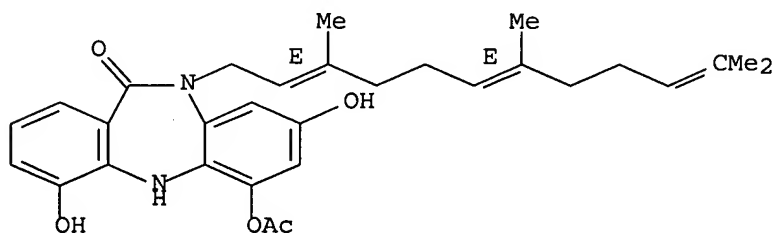
Double bond geometry as shown.



RN 733011-32-0 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 6-(acetyloxy)-5,10-dihydro-4,8-dihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

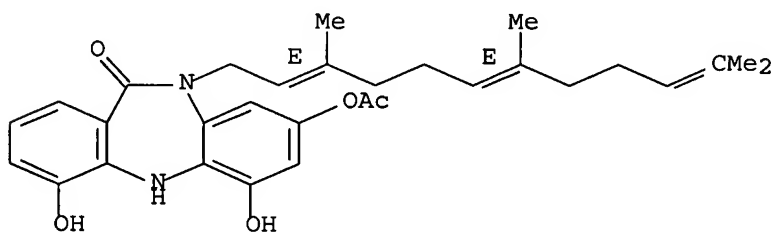
Double bond geometry as shown.



RN 733011-33-1 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 8-(acetyloxy)-5,10-dihydro-4,6-dihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

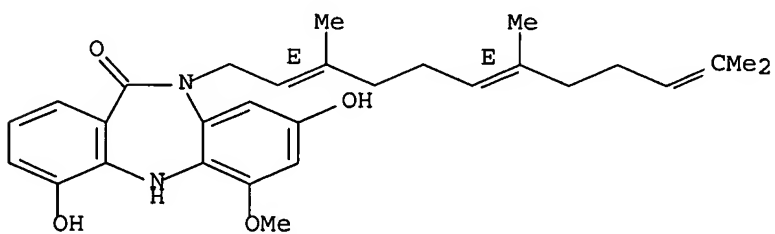
Double bond geometry as shown.



RN 733011-39-7 CAPLUS

CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5,10-dihydro-4,8-dihydroxy-6-methoxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

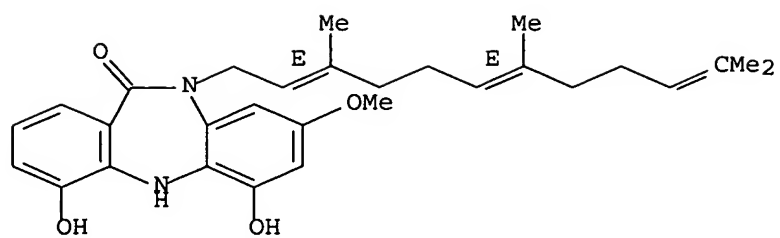
Double bond geometry as shown.



RN 733011-41-1 CAPLUS

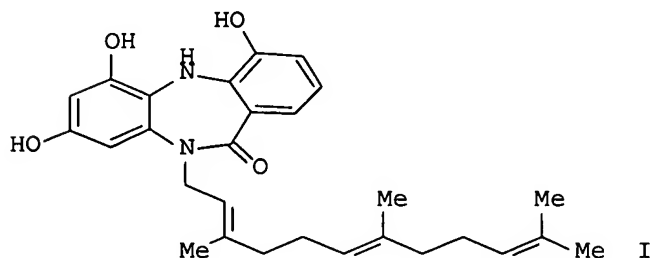
CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5,10-dihydro-4,6-dihydroxy-8-methoxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



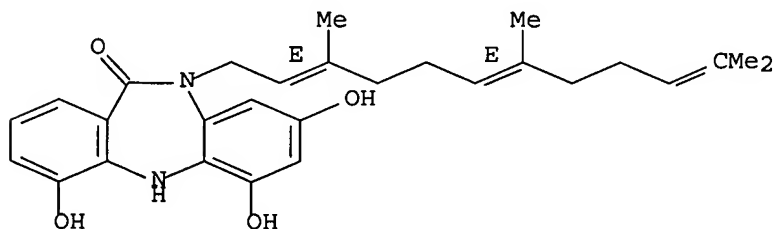
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:462918 CAPLUS Full-text
 DN 141:170547
 TI Diazepinomicin, a new antimicrobial alkaloid from a marine Micromonospora sp.
 AU Charan, Romila D.; Schlingmann, Gerhard; Janso, Jeffrey; Bernan, Valerie; Feng, Xidong; Carter, Guy T.
 CS Chemical and Screening Sciences, Wyeth Research, Pearl River, NY, 10965, USA
 SO Journal of Natural Products (2004), 67(8), 1431-1433
 CODEN: JNPRDF; ISSN: 0163-3864
 PB American Chemical Society
 DT Journal
 LA English
 GI



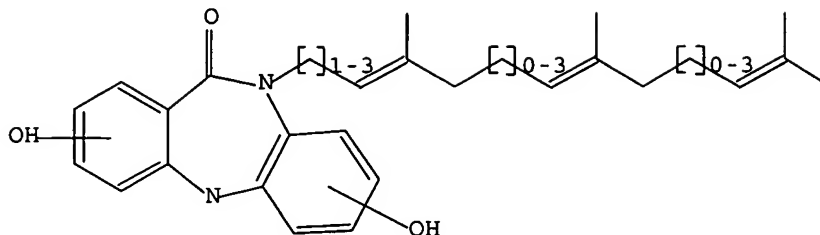
AB The structure of a new dibenzodiazepine alkaloid, diazepinomicin (I), isolated from the culture of a marine actinomycete of the genus Micromonospora, was characterized using spectroscopic methods. Diazepinomicin represents a unique mol. class composed of a dibenzodiazepine core linked to a farnesyl side chain.
 IT 733035-26-2P, Diazepinomicin
 RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation) (diazepinomicin from marine Micromonospora)
 RN 733035-26-2 CAPLUS
 CN 11H-Dibenzo[b,e][1,4]diazepin-11-one, 5,10-dihydro-4,6,8-trihydroxy-10-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrienyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l2; d his; log y
 L2 HAS NO ANSWERS
 L1 STR



Structure attributes must be viewed using STN Express query preparation.
 L2 QUE ABB=ON PLU=ON L1

(FILE 'REGISTRY' ENTERED AT 14:39:19 ON 22 SEP 2005)

DEL HIS Y
 L1 STRUCTURE UPLOADED
 L2 QUE L1
 L3 1 S L2
 L4 8 S L2 FUL

FILE 'CAPLUS' ENTERED AT 14:40:31 ON 22 SEP 2005

L5 3 S L4

FILE 'BEILSTEIN' ENTERED AT 14:41:00 ON 22 SEP 2005

L6 0 S L2
 L7 0 S L2 FUL

FILE 'MARPAT' ENTERED AT 14:41:20 ON 22 SEP 2005

| | | |
|--|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.43 | 177.73 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | 0.00 | -2.19 |

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